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# ORGANIZATIONAL AND ENVIRONMENTAL FACTORS IN HEALTH AND PERSONNEL EFFECTIVENESS: II. DATA COLLECTION METHODS, TEST INSTRUMENTS, AND CRITERION VARIABLES

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Organizational and Environmental Factors in Health and Personnel Effectiveness

II. Data Collection Methods, Test Instruments, and Criterion Variables

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## Introduction

This report describes in detail the methodology and test instruments employed in a large-scale study of naval and civilian organizations which is currently in its third year. The study is sponsored jointly by the Bureau of Medicine and Surgery and the Office of Naval Research and represents a closely coordinated effort conducted by the Naval Health Research Center, San Diego, and the Institute of Behavioral Research, Texas Christian University, Fort Worth. A general introduction to the study with an explanation of its origins and rationale was given in a previous report (Gunderson and Sells, 1975).

This study was designed to encompass a wide range of individual, environmental, and organizational variables; an investigation of such size and complexity involves the definition of a very large number of specific data elements. The principal methods for gathering research data were direct observations, questionnaires, rating forms, interview procedures, specially designed institutional records, retrieval of archival records, and peer nominations. The many diverse areas of data were designed to represent major components of the social systems model described elsewhere (James and Jones, 1974a; James and Jones, in press).

### The Habitability and Shipboard Climate Questionnaire

The primary instrument used in the study was the 400-item Habitability and Shipboard Climate Questionnaire. This questionnaire was accompanied by a personal data sheet which contained identifying information and items reflecting Navy career history and status. An anonymous peer nomination form was administered at the same time as the questionnaire and personal data sheet.

An abbreviated version of the Habitability and Shipboard Climate Questionnaire (225 items) which included most of the major variables represented in the original questionnaire was administered to crews of approximately one-half of the 20 Navy combat ships in the sample near the end of overseas deployments. This retest procedure provided evidence for stability or change in the in the environmental, organizational climate, and job attitude measures during the 6- to 7-month deployment period.

The 400-item Habitability and Shipboard Climate Questionnaire consisted of six major areas: (1) biographical information, (2) habitability perceptions, (3) organizational climate perceptions, (4) job attitude measures, (5) self-report of health status, and (6) mission effectiveness.

Descriptions are provided below for these sets of items, and scales or item composites representing major variables of the study are listed in a series of tables in the Appendix. Other instruments, forms, and sources of data used in the study will be described under appro-

priate headings in the remaining sections of the report.

#### Demographic, Biographical, and Navy Status Information

Items in this section include variables from both the 400-item questionnaire and the personal data sheet that have demonstrated relationships to behavioral criteria (health, disciplinary problems, job attitudes, reenlistment, etc.) in previous studies as well as information the investigators felt might provide linkages between individual and situational components of the organizational model.

Appendix A, Table 1, provides a breakdown of Identifying and Navy Status Items (Part I), Demographic Items (Part II), and Biographical Items (Part III).

#### Habitability Items

The habitability items formed 26 composites or scales first created on an a priori basis and then verified by a principal components factor analysis. The basic habitability dimensions utilized are shown in Appendix A, Table 2. The composites of habitability items were grouped or classified according to crew members' perceptions of habitability conditions in five main areas of the ship, that is, berthing areas, working areas, messing areas, head or sanitary facilities, and the ship in general. Appendix A, Table 3, provides a list of these composites and the constituent items. In addition, information was gathered concerning crew members' perceptions of services provided by the ship, such as medical care, food service, and recreational facilities.

#### Organizational Climate Items

Organizational climate items were grouped into 35 composites based upon an extensive review of the literature (James and Jones, 1974b; Jones, James, and Bruni, 1973; James, Jones, and Hornick, 1973) and item intercorrelations. These composites and items are shown in Appendix A, Table 4. Final selection of items within composites was based upon high internal consistency.

#### Job Attitude Items

Job satisfaction items are of three types. The first set is based upon the Lawler and Hall's (1970) definition of job satisfaction as "the degree to which a person's needs are actually satisfied" (Jones, et al., 1973). The same set of items is presented in a second format to measure need strength (Hackman and Lawler, 1971). These items are an adaptation of Porter's need scales which were based upon Maslow's need hierarchy. The scales and items are contained in Appendix A, Table 5.

The third type of satisfaction scale consists of four items which have been used in previous research to tap overall Navy satisfaction. These items also are listed in Table 5.

The Job Involvement scale (Appendix A, Table 5) consists of six items taken from Lawler and Hall (1970). The items were part of a larger pool originally developed by Lodahl and Kejner (1965) who defined job involvement as the "degree to which a person's work performance affects his self-esteem" (p. 25).

Four items taken from Lawler and Hall (1970) make up the Intrinsic Motivation scale (Appendix A, Table 5). Development of this scale as well as the Job Involvement Scale are discussed in Lawler and Hall.

#### Self-Report of Illness

This section of the Shipboard Climate Questionnaire contains 17 questions (Appendix A, Table 6) designed to reflect how the respondent sees his own health both currently and during the past year. It is assumed that relationships may exist between perceived health and various behavioral criteria such as job attitudes, disciplinary problems, actual illness, and so on.

#### Mission Effectiveness

In addition to the major areas outlined above, several items were included which tapped the crew's perceptions of the mission effectiveness of their ship. These items, to be used in conjunction with other criterion information, are listed in Appendix A, Table 7.

In the next sections of the report other sources of data gathered in the study will be described. The procedures and instruments summarized here represent a comprehensive measurement system for analysis of naval organizations.

### Other Sources of Data

#### Manning Chart

In order to specifically locate each subject and to determine the level of manning for each organizational unit included in the study, a Manning Chart was obtained from the Personnel Office of each ship. From this form precise information about each man was requested including: ship, department, division, social security number, name, rate (job specialty), and work group supervisor. Additionally, the form noted the number of men authorized in each rate and the actual number present. In order to monitor personnel changes during the deployment, this form was administered at the beginning and at the end of the deployment for each of the ships. By comparing authorized manning level with actual manning level, an index of over- and under-manning can be derived. (See Ship's Organization Chart.)

#### Ship's Organization Chart

In addition to the Manning Chart this form was used to establish specific departmental and

and divisional manning levels for the organizational units aboard each of the ships. The ship-board organization was indicated in terms of the actual number of men in each department and division and the minimum numbers of men required in each division. In this manner an estimate of percent of over- or under-manning can be obtained by division, department, and ship.

#### Individual Status Modifications

The Individual Status Modifications form was designed to obtain information from personnel records about changes in individual status that occurred during the course of the ship's deployment. In addition to name, social security number, rate, and pay grade, advancement in rate, reenlistment, request for separation from the Navy, transfer from the ship (including reason), transfer to the ship, emergency leave (including reason), commendation or awards given, and exceptional (unusually high or low) performance marks received by the individual were indicated. It was hypothesized that relationships might be found between these status modifications and personal satisfaction, attitudes, illnesses, and so on at an individual level. Assuming that large numbers of status modifications occur, similar relationships can be investigated between personnel changes and morale, climate, and illness rate at an organizational level.

As with other indices, rates of occurrence will be obtained and compared among job types, divisions, departments, ships, and ship types. In addition, specific variables will be used as criteria (for example, reenlistment) or as predictors of such criteria (for example, promotion).

#### Performance Record

This form was designed to obtain further individual information not obtained from the 400-item questionnaire or the Individual Status Modifications form. Data were gathered by the ship's Personnel Office from individual service records. In addition to name and social security number, race, religion, most recent performance marks, Armed Forces Qualifications Test scores, and basic battery test scores were collected. This information will be applied to the demographic and Navy status profiles of each subject.

#### Disciplinary Log

Participating commands were requested to maintain a written record of all disciplinary actions taken during the course of the study (approximately 6-7 months). No routine records exist in the Navy for legal actions which do not involve courts-martial. The information contained in the Disciplinary Log includes: type of violation; if unauthorized absence, number of hours; type and amount of punishment, for example, fine, extra work, reduction in pay or rank; level of disciplinary action, for example, executive officer's mast (essentially a screening

process), captain's mast (non-judicial punishment), or court-martial. From this information the following quantitative indices can be derived: rates of specific offenses; man-days lost due to brig time; rates of offenses by division, department, ship, ship class or type, and so on; amount and type of punishment; rates of suspended punishment versus actual punishment; rates of disciplinary actions reaching executive officer's mast only; rates of offenses in port versus at sea; rates of offenses by job type, pay grade, and other demographic indices.

#### Sick Call Checklist

The Sick Call Checklist was designed to be a simple, brief, but reliable method of collecting illness and injury data. The information obtained will provide baseline data so that conditions associated with unusually high rates of illness can be recognized.

The Checklist, approximately the size of an IBM card, lists 47 types of illnesses or injuries on the back of the card and provides spaces for other types of illnesses. The corpsman merely checks the appropriate box. The front of the card has blank spaces for the patient to fill in identifying information, that is, name, social security number, rate, pay grade, and division. Also, the front of the card has spaces for the corpsman to indicate new vs. follow-up visit and disposition of the case.

Illness is a major criterion of the study, and extensive analysis of the sick call data is planned. The basic formula used to define specific or total illness rates is the number of initial visits per 1,000 men per day. Illness rates can be computed by occupation, division, ship, or other organizational subgroup or by selected time periods during the deployment. An individual illness criterion reflecting the number of new illnesses per unit of time also can be derived.

#### Peer Nomination Form

At the time of the first questionnaire administration a separate peer nomination form was given anonymously. Information obtained from the peer form included: name of the nominator's ship, the nominator's rate, pay grade, division, and the estimated number of enlisted men the nominator knew. The nominator was then requested to list three choices by name for each of the following categories: (1) most capable, (2) best leader, and (3) most popular and friendly. In addition, the nominator was requested to supply the nominee's social security number, rate, and pay grade if known; this information, if left blank, could be retrieved from other sources, for example, the main questionnaire. The peer nomination form will yield criterion scores for individual performance as well as work group indices such as cohesiveness.

On the back of the Peer Nomination Form subjects were encouraged to make personal comments. These comments have been content analyzed and specific categories created. Numbers of comments within each category will be compared across ships and ship types.

#### Commanding Officer-Executive Officer Interview

In order to obtain a comprehensive perspective of conditions aboard ship, special consideration was given to the mission and habitability status of the ship as viewed by the commanding officer or executive officer. Because the perceptions of crew members sampled may have been influenced by their own jobs, physical location on the ship, or particular working conditions, the investigators needed to have additional information about each of the ships in terms of its mission, formal and informal work group structures, typical operations, and differences between divisions and departments. By means of several open-ended questions, these standardized interviews, administered to either the commanding officer or the executive officer depending upon who was available, provided more specific and detailed information about various physical features of the ship, habitability conditions, missions performed, mechanical condition of the ship, the quality of medical care, and so on.

#### Executive Officer Interview (Retest)

The second in command of the ship, the executive officer, is primarily concerned with the myriad administrative details of the organization. The Executive Officer Interview was a standardized list of questions designed to reflect events or changes that have been important to crew members during the deployment. The following questions were asked:

1. What "habitability" changes (if any) have been made in the living or working areas? When? Where? What?
2. What is the ship's watch set up: sections, length of watches, what divisions are affected most, etc.?
3. During this deployment what events (if any) in your opinion, have affected the crew's morale? When? What?
4. List any changes in officer status (transfer from and to the ship, transfers within divisions or departments. etc.)
5. Any additional comments?

Changes in leadership, habitability, or operational conditions might have an impact on crews' morale; some of these critical incidents may not have been recorded in the ship's deployment log.

#### Department Head Interview

While the main questionnaire was designed to tap the perceptions of enlisted crew members on habitability, leadership, and so on, the Department Head interview is a standardized form

that attempts to obtain similar information from the middle-management level. Presumably, the department head's responses would be based upon global aspects of the situation, such as the ship's ultimate mission, budgetary priorities, and standard military procedures. The questions centered on habitability, communications, and conflict resolution within the department. In addition, a special section was designed for the senior medical officer to indicate some of his perceptions as to the nature of sick call visits aboard certain ships (carriers and flotilla flag ships). Responses provide information concerning the structure and organizational climate of specific departments from the middle-management point of view.

#### Department Head and Division Head Questionnaire

The Department Head and Division Head Questionnaire was designed to gather information in several item domains including: ship's general habitability, ship's medical care, the level of organizational technology, department and division goals, overall organizational objectives, formalization and standardization of procedures, dependence upon other departments/divisions, centralization vs. decentralization of decision-making authority and responsibility, and perceptions concerning general working conditions.

Principal component factor analysis was used to define dimensions, and scores were created through simple summation procedures. These represented important aspects of organizational structure and context (department or division) (James and Jones, 1974a).

#### Organizational Performance (Retest)

These questionnaires were designed in the re-translated expectations format (Smith and Kendall, 1963) to obtain estimates of organizational effectiveness. Commanding officers and executive officers compared all departments on board the ship; department heads completed an identical form to compare divisions within their departments. Each form consists of 24 questions pertaining to eight dimensions of organizational performance. The eight dimensions were: (1) quality of work, (2) readiness to fulfill commitments, (3) performance under pressure, (4) efficiency, (5) working relationships, (6) safety standards, (7) leadership, and (8) maintenance standards. The 24 items were randomly distributed throughout the questionnaire and devised so that each division/department was described as below average, average, or above average. Raters marked each division/department with a +, 0, or - to indicate whether the division/department was better than described, was accurately described, or was poorer than described by the statement. Responses were then assigned scores from 1 to 3. Thus, each dimension could have total scores ranging from 3 to 9. In this way comparisons could be made

within ships as to organizational performance of divisions and departments using the eight criterion dimensions.

#### Division Description Questionnaire (Retest)

The Division Description Questionnaire (DDQ) contains a number of statements concerning the equipment and personnel in each division which might influence the performance of that division. Questions ranged from reliability and availability of equipment to the degree of alcohol and drug abuse. Responses will be scored according to their relevance to particular criterion-related outcomes. For example, the following two items are relevant to the criterion of organizational climate:

Requests for transfer:

- a. Many requests for transfer out of this division
- b. Few requests for transfer out of this division
- c. No requests for transfer out of this division

Problems resulting from the use of drugs and alcohol were:

- a. Frequent
- b. Occasional
- c. Infrequent
- d. Non-existent

The following questions, on the other hand, will apply to the criterion of mission effectiveness:

Reliability of equipment:

- a. The Planned Maintenance System (PMS) is sufficient to maintain most equipment
- b. Most equipment requires occasional maintenance beyond PMS
- c. Considerable extra effort is required to keep most equipment operational.

Parts:

- a. Most needed parts are readily obtained
- b. Some needed parts are readily obtained while others are not
- c. Difficult to obtain needed parts; follow up is required

#### Deployment and Engineering Log

A major concern of this study was to monitor each of the ship's operations throughout the entire deployment. The Deployment and Engineering Log was one of the ways this was accomplished. In conformance with standard naval forms used aboard ship, this form was designed to monitor ship's operations at sea and in port and locations throughout the ship's deployment. Also noted on the form were explanations of operational changes and/or major breakdowns that affected the entire crew, for example, because of damaged evaporators the ship had limited water available.

Quantitative indices to be derived include amount of time spent in port/at sea, length of

cruise, number of port visits, number of unexpected operational commitments (for example, the Mid-East war), number of major equipment failures, and number of other unusual or unexpected events.

#### Casualty Report Tally

Objective measures of performance of naval units are difficult to obtain. A ship, unlike a factory, manufactures no product. In essence, a Navy ship is a weapons platform whose product is readiness. One measure of readiness would be the status of ship's equipment which directly supports the ship's mission. In fact, commanding officers are required to make daily casualty reports to their respective seniors. Casualty reports consist of lists of equipment vital to the ship's mission which are not functioning properly. The Casualty Report Tally was designed to obtain information on the lack of readiness of each ship. Participating units were requested to list, by division, the number of casualty reports submitted during the course of the deployment. The confidential nature of the official casualty reports precluded obtaining more specific information. It should further be pointed out that the degree to which a piece of equipment affects the mission and the manner in which it affects that mission can vary tremendously. For instance, a casualty report from the engineering department may note the inability of the ship's evaporators to function properly, thereby causing a shortage of fresh water. This affects the morale of the crew and indirectly the fighting ability of the ship. The same casualty report, however, may note the malfunction of a piece of equipment which prevents the ship from getting underway -- an obviously much more serious problem. Our data indicate only the absolute number of casualty reports occurring by division. This information will provide a rate of equipment breakdown and, thus, a quantitative measure of mission effectiveness by division, department, ship, and ship class.

#### Planned Maintenance System (PMS) Rating

This form was designed to measure division performance in carrying out the Planned Maintenance System which is a fleet-wide system devised to maintain a high level of materiel effectiveness. During the deployment, the PMS coordinator rated each division on the ship as to how well maintenance of equipment was performed and reported. Thus, the degree of performance of Planned Maintenance System (PMS) requirements was estimated, and a score was assigned to each division rated. Divisions and departments within a ship can then be rank ordered on this variable.

### Transfer Request Form

An indication of morale or climate within a division might be the number of personnel wanting to leave the division. The Transfer Request Form was a record maintained by the ship's personnel office of the number of requests received for transfer between divisions. Rates of transfer requests will be obtained by division, department, ship, and ship type, and appropriate comparisons will be made.

### Supply Department Survey

The Supply Department is unique in that it not only functions in a utilitarian manner for the entire organization, that is, obtaining parts and supplies for the maintenance of the ship, but it also provides personal services for crew members. The Supply Department Survey was designed so that comparisons could be made between ships concerning the degree of effort made to provide these personal services for the crew. Specific items included were: hours per week the barbershop was open; normal barbershop hours; hours per week the ship's store was open; normal store hours; amount of profit made through personal services; the occurrence, date, and length of special sales, if any, and types of items discounted. Scores will be derived from these items and used as a criterion of organizational climate.

While it is recognized that many factors are ultimately beyond the control of the supply officer, it has been the personal experience of the investigators that the supply officer has a great deal of latitude in interpreting and implementing specific policies on board his ship. It was thought that differences in Supply Department policies and practices between ships might be reflected in differences in crew morale, attitudes, and so on.

### Physical Space Evaluation Form and Photographic Survey

In order to obtain objective information and independent evaluations of shipboard living conditions, the Physical Space Evaluation Form was used by trained research staff members to describe specific environmental characteristics of each ship. A research staff member systematically inspected each ship and entered pertinent information concerning specific features of berthing areas, sanitary facilities, messing areas, and recreational areas or lounges. Some of the data recorded were: square feet of floor space; number, type, and arrangement of fixtures in living spaces, including bunks, lockers, privacy panels, etc.; type of lighting; ventilation/air conditioning in the spaces, and conditions of cleanliness and neatness. Measurements also were taken of sound (DBA), light (Foot Candles), and temperature (degrees Fahrenheit) in some of these spaces, but it was impossible to obtain such measurements on more than a few ships.

At the same time that the observer filled out the Physical Space Evaluation form, he photographed the same spaces. Standard instructions were used for this photographic survey.

From the physical evaluation data the following quantitative indices of crowding have been derived:

- (1) Square feet of berthing area/man
- (2) Cubic feet of storage space/man
- (3) Number of men/urinal
- (4) Number of men/shower
- (5) number of men/mess table
- (6) Number of men/lounge area

In addition, scores will be derived which are based on the presence or absence of air conditioning, privacy panels, modern styled bunks and lockers, and other conveniences.

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## Appendix A

Table 1. Demographic, Navy Status, and Biographical Information

Table 2. Primary Habitability Dimensions

Table 3. Habitability Composites by Area of Ship

Table 4. Organizational Climate Composites by Content Area

Table 5. Job Attitude Scales

Table 6. Self-Report of Illness

Table 7. Mission Effectiveness

Table 1

## Demographic, Navy Status, and Biographical Information

I. Identifying and Navy Status Items:

Social Security Number  
 Total active Navy service (years, months)  
 Pay grade  
 Number of current enlistment (1st, 2nd, etc.)  
 Time served in current enlistment (years, months)  
 Time left in current enlistment (years, months)  
 Time in present pay grade (years, months)  
 Time at present activity (ship) (years, months)  
 Amount of sea duty (years, months)  
 Usual duty section in port  
 Usual duty section at sea  
 Months spent on leave in last year  
 Months spent in training schools in last year  
 Number of men in division  
 Number of men in work area  
 Number of men working closely  
 Number of men supervised  
 Compartment number of berthing area  
 Time in present division (years, months)

Current duty assignment  
 Number of 'A' and/or 'B' Schools completed  
 Number of other training courses/schools completed  
 Rate (job specialty)  
 Armed Forces Qualification Test (AFQT) score  
 General Classification Test (GCT) score  
 Arithmetic Test score  
 Mechanical Test score  
 Clerical Test score  
 Sonar Test score  
 Radio Test score  
 Electronic Test score  
 Performance Marks I  
 Performance Marks II  
 Performance Marks III  
 Performance Marks IV  
 Performance Marks V  
 Ship code

II. Demographic Items:

Religion  
 Race  
 Number of dependents (not including self)  
 Number of years married  
 Age (years)

Number of years of formal education  
 Diploma or degree achieved  
 Pre-enlistment trade, technical, or vocational school  
 (years, months)  
 Vocational course completed  
 Marital status

III. Biographical Items:

377. During the three years prior to your entering the Navy, what was your parents' average year's income?

- a. Less than \$5,000
- b. From \$5,000 to \$7,999
- c. From \$8,000 to \$10,999
- d. From \$11,000 to \$14,999
- e. \$15,000 or more

378. How many times were you expelled or suspended while in school?

- a. Never
- b. One time
- c. Two times
- d. Three times
- e. Four times or more

379. How many traffic violations have you had during the past three years?

- a. None
- b. One
- c. Two
- d. Three
- e. Four or more

383. Where did you live most of the time up to the age of 17?

- a. A small town (less than 5,000 population) or farming community
- b. A town (5,000-50,000 population)
- c. A city (50,000-250,000 population)
- d. A suburb to a large city
- e. A large city (more than 250,000 population)

384. At the time you entered the Navy, how many years of education had your father or male guardian completed?

- a. 8 years or less
- b. 9-11 years
- c. Graduated from high school
- d. Attended some college
- e. Graduated from college

385. How many grades or courses, if any, did you fail while in school?

- a. None
- b. One
- c. Two
- d. Three or more

386. How many rooms (approximately) were there in the residence in which you lived for the longest period of time while growing up?

- a. 4 rooms or less
- b. 5 to 6 rooms
- c. 7 to 8 rooms
- d. 9 to 10 rooms
- e. 11 rooms or more

387. How old were you when you first entered the Navy?

- a. 17 or younger
- b. 18
- c. 19
- d. 20
- e. 21 or older

389. How many times during your school years were your parents called to come to the principal's office or counselor's office to discuss your problems (poor grades or misconduct)?

- a. Never
- b. Once
- c. Two or three times
- d. Four or five times
- e. Many times

391. During your last school year, how often were you late in coming to school?

- a. Often late
- b. Occasionally late
- c. Late once in a while
- d. Never even a little late

Table 2

## Primary Habitability Dimensions

"FOR EACH OF THE CONDITIONS BELOW, CHOOSE THE LETTER WHICH COMES CLOSEST TO DESCRIBING THE WAY THINGS ARE IN YOUR WORKING AREA."\*

LIGHTING - - - - -	<u>TOO DIM</u> a	b	c	d	<u>TOO BRIGHT</u> e
TEMPERATURE - - - - -	<u>HOT</u> a	b	c	d	<u>COLD</u> e
VENTILATION - - - - -	<u>POOR</u> a	b	c	d	<u>GOOD</u> e
CLEANLINESS - - - - -	<u>DIRTY</u> a	b	c	d	<u>CLEAN</u> e
ODOR - - - - -	<u>UNPLEASANT</u> a	b	c	d	<u>PLEASANT</u> e
SIZE - - - - -	<u>CRAMPED</u> a	b	c	d	<u>ROOMY</u> e
NUMBER OF PEOPLE - - - - -	<u>CROWDED</u> a	b	c	d	<u>UNCROWDED</u> e
COLOR - - - - -	<u>UNPLEASANT</u> a	b	c	d	<u>PLEASANT</u> e
PRIVACY - - - - -	<u>NONE</u> a	b	c	d	<u>PLENTY</u> e
NOISE - - - - -	<u>EXTREMELY DISTURBING</u> a	b	c	d	<u>NOT BOTHERSOME</u> e
SAFETY	<u>HAZARDOUS</u> a	b	c	d	<u>SAFE</u> e

\*The same instructions and dimensions are presented separately for the individual's messing area, berthing area, head, and the entire ship.

Table 3  
Habitability Composites by Area of Ship

WORK AREA

Work Noise

93. Noise

<u>Extremely Disturbing</u>				<u>Not Bothersome</u>
a	b	c	d	e

Work Safety

94. Safety

<u>Hazardous</u>				<u>Safe</u>
a	b	c	d	e

Work Temperature and Ventilation

85. Temperature

<u>Hot</u>				<u>Cold</u>
a	b	c	d	e

86. Ventilation

<u>Poor</u>				<u>Good</u>
a	b	c	d	e

Work Cleanliness and Odor

87. Cleanliness

<u>Dirty</u>				<u>Clean</u>
a	b	c	d	e

88. Odor

<u>Unpleasant</u>				<u>Pleasant</u>
a	b	c	d	e

Work Crowding

89. Size

<u>Cramped</u>				<u>Roomy</u>
a	b	c	d	e

90. Number of People

<u>Crowded</u>				<u>Uncrowded</u>
a	b	c	d	e

MESSING AREA

Food Facilities and Service

2. The availability of mess facilities on this ship is:

- a. Very poor
- b. Poor
- c. Acceptable
- d. Good
- e. Very good

Food Facilities and Service (continued)

3. The food on this ship is:

- a. Very poor
- b. Poor
- c. Acceptable
- d. Good
- e. Very good

4. At meal time I normally have to wait in line:

- a. Never
- b. Less than 5 minutes
- c. 5 to 10 minutes
- d. 11 to 20 minutes
- e. More than 20 minutes

5. The quality of the tables, chairs, utensils and other furnishings of the mess area on this ship is:

- a. Very poor
- b. Poor
- c. Fair
- d. Good
- e. Very good

BERTHING AREA

Number in Berthing Area

11. How many people are there in your berthing compartment?

- a. 20 or less
- b. 21 to 30
- c. 31 to 40
- d. 41 to 60
- e. 61 or more

22. Do people from more than one division occupy your berthing area?

- a. No
- b. Yes, one other division
- c. Yes, two other divisions
- d. Yes, three other divisions
- e. Yes, four or more other divisions have people in my berthing area

Bunk Condition

10d\*. Which one of the following changes would be most helpful in your berthing space?

- d. New bunks

14. My bunk is:

- a. Completely enclosed, with a pull curtain
- b. Enclosed, but has no curtain
- c. Partially enclosed (privacy panels)
- d. Not at all enclosed

15a\*. My bunk is:

- a. On pipe stands with a mattress on rope webbing

15c\*. My bunk is:

- c. Metal with a fixed bottom, mattress, and an enclosed locker

Storage

12. Do you need more storage space for uniforms?

- a. A lot more space
- b. A little more space
- c. No more space

13. Do you need more storage space for civilian clothes?

- a. A lot more space
- b. A little more space
- c. No more space

Berthing Area (continued)

Berthing Temperature and Ventilation

74. Temperature

Hot *somewhat* *normal* *somewhat* Cold  
a b c d e

75. Ventilation

*very* Poor *Poor* *fair* *good* *very* Good  
a b c d e

Berthing Cleanliness and Odor

76. Cleanliness

Dirty a b c d Clean  
e

77. Odor

Unpleasant a b c d Pleasant  
e

Berthing Crowding

78. Size

~~Cramped~~ *somewhat* *Cramped* ~~Cramped~~ *somewhat* ~~Roomy~~  
a b c d e

79. Number of People

*neither cramped nor Roomy*  
Crowded a b c d Uncrowded  
e

Sleep Problems

16. How often do berthing area conditions (noise, pitch, light, etc.) cause you trouble in getting to sleep?

- a. Never
- b. Rarely
- c. Sometimes
- d. Often
- e. Nearly all the time

HEAD AREA

Head Crowding

29. In order to get a shower I normally have to wait in line:

- a. Never
- b. Less than 5 minutes
- c. 5 to 10 minutes
- d. 10 to 20 minutes
- e. More than 20 minutes

30. How many heads are there available for the personnel in your berthing area?

- a. Not enough, we always have to wait
- b. We need a few more
- c. Barely enough
- d. The number of heads is adequate
- e. We have more than we need

## RECREATION

### Recreation Equipment

- 35b\*. How much recreation equipment is available on board?
- b. Very little or none at all
- 35d\*. How much recreation equipment is available on board?
- d. A fair amount
- 36e\*. What is the condition of your ship's recreation equipment?
- e. Everything seems to be in good condition
39. Do you have adequate facilities for writing letters and reading?
- a. No, there is no place other than our bunks  
b. The facilities are poor  
c. The facilities are barely adequate  
d. The facilities provided are satisfactory  
e. The facilities provided are quite good
40. Enough recreational equipment is provided on this ship so that I am able to keep in good physical shape.
- a. Strongly agree  
b. Agree  
c. Neither agree nor disagree  
d. Disagree  
e. Strongly disagree

## SHIP

### Ship Design and Maintenance

18. My berthing area is designed so that it is very easy to keep clean.
- a. Strongly agree  
b. Agree  
c. Neither agree nor disagree  
d. Disagree  
e. Strongly disagree
27. The physical layout of my work space is:
- a. Very convenient  
b. Somewhat convenient  
c. Adequate  
d. Somewhat inconvenient  
e. Very inconvenient
28. Are the heads on this ship maintained in good condition?
- a. No, there is always something out of order  
b. Frequently something is out of order  
c. Occasionally something doesn't operate right  
d. Generally they are in good condition  
e. There is never anything wrong with them
34. The heads aboard this ship are designed so that they are very easy to keep clean.
- a. Strongly agree  
b. Agree  
c. Neither agree nor disagree  
d. Disagree  
e. Strongly disagree
50. In general, how difficult is it to keep this ship clean?
- a. Extremely difficult  
b. Quite difficult  
c. Somewhat difficult  
d. Not very difficult  
e. It is easy to keep it clean

\*Dichotomized items.

Ship Design and Maintenance (continued)

51. To what extent are needed repairs to living areas of the ship delayed by lack of materials?

- a. To a small extent
- b. To some extent
- c. To a great extent
- d. To a very great extent

52. To what extent are poorly manufactured materials a problem on this ship?

- a. To a small extent
- b. To some extent
- c. To a great extent
- d. To a very great extent

Ship Lighting

63. Lighting - Messing area

<u>Too Dim</u>					<u>Too Bright</u>
a	b	c	d	e	

73. Lighting - Berthing Area

<u>Too Dim</u>					<u>Too Bright</u>
a	b	c	d	e	

84. Lighting - Working Area

<u>Too Dim</u>					<u>Too Bright</u>
a	b	c	d	e	

95. Lighting - Heads

<u>Too Dim</u>					<u>Too Bright</u>
a	b	c	d	e	

106. Lighting - Aboard the Entire Ship

<u>Too Dim</u>					<u>Too Bright</u>
a	b	c	d	e	

Ship Color

70. Color - Messing Area

<u>Unpleasant</u>					<u>Pleasant</u>
a	b	c	d	e	

80. Color - Berthing Area

<u>Unpleasant</u>					<u>Pleasant</u>
a	b	c	d	e	

91. Color - Working Area

<u>Unpleasant</u>					<u>Pleasant</u>
a	b	c	d	e	

102. Color - Heads

<u>Unpleasant</u>					<u>Pleasant</u>
a	b	c	d	e	

113. Color - Aboard the Entire Ship

<u>Unpleasant</u>					<u>Pleasant</u>
a	b	c	d	e	

SHIP (continued)

Ship Temperature and Ventilation

64. Temperature - Messing Area

<u>Hot</u>				<u>Cold</u>
a	b	c	d	e

65. Ventilation - Messing Area

<u>Poor</u>				<u>Good</u>
a	b	c	d	e

96. Temperature - Heads

<u>Hot</u>				<u>Cold</u>
a	b	c	d	e

97. Ventilation - Heads

<u>Poor</u>				<u>Good</u>
a	b	c	d	e

107. Temperature - Aboard the Entire Ship

<u>Hot</u>				<u>Cold</u>
a	b	c	d	e

108. Ventilation - Aboard the Entire Ship

<u>Poor</u>				<u>Good</u>
a	b	c	d	e

Ship Cleanliness and Odor

66. Cleanliness - Messing Area

<u>Dirty</u>				<u>Clean</u>
a	b	c	d	e

67. Odor - Messing Area

<u>Unpleasant</u>				<u>Pleasant</u>
a	b	c	d	e

98. Cleanliness - Heads

<u>Dirty</u>				<u>Clean</u>
a	b	c	d	e

99. Odor - Heads

<u>Unpleasant</u>				<u>Pleasant</u>
a	b	c	d	e

109. Cleanliness - Aboard the Entire Ship

<u>Dirty</u>				<u>Clean</u>
a	b	c	d	e

110. Odor - Aboard the Entire Ship

<u>Unpleasant</u>				<u>Pleasant</u>
a	b	c	d	e

## SHIP (continued)

## Ship Crowding

42. In general, the living spaces (berthing, heads, etc.) on this ship are:

- a. Very tight, cramped
- b. Tight, but not cramped
- c. There is adequate room (space) in the berthing and other living areas

68. Size - Messing Area

<u>Cramped</u>				<u>Roomy</u>
a	b	c	d	e

69. Number of People - Messing Area

<u>Crowded</u>				<u>Uncrowded</u>
a	b	c	d	e

100. Size - Heads

<u>Cramped</u>				<u>Roomy</u>
a	b	c	d	e

101. Number of People - Heads

<u>Crowded</u>				<u>Uncrowded</u>
a	b	c	d	e

111. Size - Aboard the Entire Ship

<u>Cramped</u>				<u>Roomy</u>
a	b	c	d	e

112. Number of People - Aboard the Entire Ship

<u>Crowded</u>				<u>Uncrowded</u>
a	b	c	d	e

## Ship Noise

71. Noise - Messing Area

<u>Extremely Disturbing</u>				<u>Not Bothersome</u>
a	b	c	d	e

82. Noise - Berthing Area

<u>Extremely Disturbing</u>				<u>Not Bothersome</u>
a	b	c	d	e

104. Noise - Heads

<u>Extremely Disturbing</u>				<u>Not Bothersome</u>
a	b	c	d	e

115. Noise - Aboard the Entire Ship

<u>Extremely Disturbing</u>				<u>Not Bothersome</u>
a	b	c	d	e

## Ship Safety

72. Safety - Messing Area

<u>Hazardous</u>				<u>Safe</u>
a	b	c	d	e

SHIP (continued)

Ship Safety (continued)

83. Safety - Berthing Area

<u>Hazardous</u>					<u>Safe</u>
a	b	c	d	e	

105. Safety - Heads

<u>Hazardous</u>					<u>Safe</u>
a	b	c	d	e	

116. Safety - Aboard the Entire Ship

<u>Hazardous</u>					<u>Safe</u>
a	b	c	d	e	

Ship Privacy

81. Privacy - Berthing Area

<u>None</u>					<u>Plenty</u>
a	b	c	d	e	

92. Privacy - Working Area

<u>None</u>					<u>Plenty</u>
a	b	c	d	e	

103. Privacy - Heads

<u>None</u>					<u>Plenty</u>
a	b	c	d	e	

114. Privacy - Aboard the Entire Ship

<u>None</u>					<u>Plenty</u>
a	b	c	d	e	

Medical Care

58. The quality of medical care aboard this ship is:

- a. Very poor
- b. Poor
- c. Fair
- d. Good
- e. Very good

59. Aboard this ship, is medical care available when you need it?

- a. Always
- b. Most of the time
- c. Sometimes
- d. Rarely

60. The medical personnel aboard this ship are concerned with my problems.

- a. Strongly agree
- b. Agree
- c. Not sure
- d. Disagree
- e. Strongly disagree

SHIP (continued)

Service

61. The laundry facilities on this ship are:

- a. Very poor
- b. Poor
- c. Adequate
- d. Good
- e. Very good

62. How adequate are the ship's store facilities?

- a. No ship's store
- b. Inadequate
- c. Somewhat adequate
- d. Adequate
- e. Very adequate

Table 4

## Organizational Climate Composites by Content Area

JOB OR TASK

Role Ambiguity: The extent to which a task is unclear in its demands, criteria or relationships with other tasks.

1. How often are you kept informed about things you need to know about your work?
  - a. Almost always
  - b. Usually
  - c. Sometimes
  - d. Rarely
  - e. Practically never
2. My job responsibilities are clearly defined.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. New crew members get the on-the-job training they need.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. It is not often clear who has the authority to make a decision regarding my job.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
5. Do you understand how your job fits into the over-all objectives of this ship?
  - a. Always understand
  - b. Usually understand
  - c. Sometimes understand
  - d. Seldom understand
  - e. Never understand
6. To what extent are you aware of the opportunities for promotion and advancement in your job?
  - a. Not at all
  - b. To a very small extent
  - c. To a small extent
  - d. To some extent
  - e. To a considerable extent

Role Conflict: The presence of pressures for conflicting or mutually exclusive behaviors.

1. Excessive rules and regulations interfere with how well I am able to do my job.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

2. How often do you feel that the amount of work you have to do interferes with how well it gets done?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Almost always
3. Opportunities to complete the work I start are:
  - a. Non-existent
  - b. Limited
  - c. Fairly good
  - d. Quite good
  - e. Outstanding
4. How often do you feel that your job tends to interfere with your family life?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Almost always
5. How often do you feel that you have too little authority to carry out the responsibilities assigned to you?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Almost always
6. How often do you feel unable to satisfy the conflicting demands of various people over you?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Almost always

Job Autonomy: The ability of a person in a given job to determine the nature of the tasks or problems facing him and to arrive at a course of action.

1. How much autonomy do you have on your job?
  - a. Very little; I have almost no "say" about scheduling my work; the work and the procedures are all laid out for me in detail.
  - b. Moderate autonomy; I make some of the decisions about my work, but many of them are made for me.
  - c. Very much; I have almost all the "say" about the scheduling of my work; I alone decide what procedures will be used.
2. I have the freedom to do pretty much what I want on my job.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Job Autonomy (continued)

3. Opportunities for independent thought and action on my job are:
  - a. Non-existent
  - b. Limited
  - c. Fairly good
  - d. Quite good
  - e. Outstanding
4. Responsibility is assigned so that a man has authority within his own area.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. How many tasks do you perform on your job which you consider relatively unimportant or unnecessary?
  - a. Nearly all
  - b. Quite a number
  - c. A few
  - d. Very few
  - e. Practically none
4. My work makes a meaningful contribution.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Job Variety: Degree to which the job calls for the individual to engage in a wide range of behaviors or to use a variety of equipment in his work.

1. How much variety is there in your job?
  - a. Very little; I do pretty much the same things over and over.
  - b. Moderate variety
  - c. Very much; I do many different things and use a wide variety of equipment and procedures.
2. How much opportunity to you have to do a number of different things on your job?
  - a. A minimum amount
  - b. A moderate amount
  - c. A considerable amount
  - d. A maximum amount
3. How often do you have opportunities to work on different jobs?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Nearly all the time
4. Opportunities to do creative work on my job are:
  - a. Non-existent
  - b. Limited
  - c. Fairly good
  - d. Quite good
  - e. Outstanding
1. I usually have good information on where I stand and how my performance is evaluated.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. How often does your supervisor discuss your work performance with you?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Often
  - e. Nearly all the time
3. To what extent are you aware of how well your work group is meeting its objectives?
  - a. Not at all
  - b. To almost no extent
  - c. To limited extent
  - d. To some extent
  - e. To a great extent

Job Feedback: The extent to which an individual is aware of how well he is performing on his job.

Job Importance: The extent to which the person feels his job makes a meaningful contribution and is important to the organization.

1. How important is your work?
  - a. Not very important
  - b. Somewhat important
  - c. Quite important
  - d. Highly important
  - e. Of vital importance
2. My job is meaningfully related to other jobs aboard this ship.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
1. Opportunities to make full use of my knowledge and skills on my job are:
  - a. Non-existent
  - b. Limited
  - c. Fairly good
  - d. Quite good
  - e. Outstanding
2. To what extent does your job challenge your abilities?
  - a. Not at all
  - b. To a very small extent
  - c. To a small extent
  - d. To some extent
  - e. To a considerable extent
3. How often do you work on difficult and challenging problems in your job?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Rather often
  - e. Nearly all the time

Job Challenge (continued)

4. To what extent does your job require a high level of skill and training?
  - a. Not at all
  - b. To a very small extent
  - c. To a small extent
  - d. To some extent
  - e. To a considerable extent
2. Are you able to get the money, supplies, etc., your work group needs to do its work well?
  - a. Almost never
  - b. Occasionally
  - c. About half of the time
  - d. Most of the time
  - e. Always

Job Pressure: The extent to which there is inadequate time, manpower, training or resources to complete assigned tasks.

1. How does your work group compare to others in terms of pressure to produce?
    - a. Much less pressure
    - b. Slightly less pressure
    - c. About an equal amount of pressure
    - d. Slightly more pressure
    - e. Much more pressure
  2. Hours of work are very irregular.
    - a. False
    - b. Somewhat false
    - c. Somewhat true
    - d. True
  3. Is there a need for more crew members in your division?
    - a. The division is definitely shorthanded
    - b. It would help to have a few more
    - c. No, there are enough in this division
    - d. There are more in the division than we need
  4. In general, do you consider the deadlines that are established for output and completion of your work to be realistic?
    - a. Very unrealistic
    - b. Rather unrealistic
    - c. Rather realistic
    - d. Very realistic
  5. The work load here is such that the crew members:
    - a. Very rarely show signs of strain
    - b. Rarely show signs of strain
    - c. Sometimes show signs of strain
    - d. Often show signs of strain
    - e. Very often show signs of strain
  6. How often are you asked to do things for which you are not fully qualified?
    - a. Never
    - b. Rarely
    - c. Sometimes
    - d. Rather often
    - e. Nearly all the time
3. Procedures are designed so that equipment is used efficiently.
    - a. Strongly agree
    - b. Agree
    - c. Not sure
    - d. Disagree
    - e. Strongly disagree
  4. Technical assistance is readily available when a problem occurs.
    - a. Strongly agree
    - b. Agree
    - c. Not sure
    - d. Disagree
    - e. Strongly disagree
  5. How much time in your work is spent preparing what you feel is unnecessary paper work?
    - a. 33% or more
    - b. About 25%
    - c. About 15%
    - d. Very little
    - e. Practically none

Job Standards: The extent to which the job demands rigid adherence to exacting standards of quality and accuracy.

1. To what extent does your job demand precision?
  - a. To a small extent
  - b. To some extent
  - c. To a considerable extent
  - d. To a very great extent
2. In my job things have to be done right; second-rate work is not accepted.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. There is a continuous effort to improve the quality of work aboard this ship.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. How often is poor quality work questioned aboard this ship?
  - a. Only when something goes wrong
  - b. Sometimes, even when things don't go wrong
  - c. Most of the time, regardless of the circumstances

Efficiency of Job Design: The extent to which job behaviors and organization lead directly to desired goals.

1. In your work group how well are people's abilities matched to their jobs?
  - a. Very well matched
  - b. Quite well matched
  - c. Somewhat well matched
  - d. Not very well matched

### Job Standards (continued)

5. To what extent are you required to meet rigid standards of quality in your work?

- a. To a very great extent
- b. To a great extent
- c. To some extent
- d. To a small extent
- e. Not at all

Opportunities for Dealing with Others: The extent to which the task requires or provides opportunities to interact with other persons.

1. To what extent is dealing with other people a part of your job?

- a. Very little; working with other people is not an important part of my job
- b. Somewhat; I have to deal with some other people, but this is not a major part of my job
- c. Frequently; I deal with many other people as a part of my job
- d. Very much; probably the single most important part of my job is working with other people

2. In my job, the opportunities to get to know people are:

- a. Non-existent
- b. Limited
- c. Fairly good
- d. Quite good
- e. Outstanding

### LEADERSHIP

Support: The extent to which the leader is aware of and is responsive to the needs of his subordinates. Behavior which enhances someone else's feelings of personal worth and importance.

1. How well does your supervisor recognize and reward good performance by his people?

- a. He is not a good supervisor in this respect
- b. He recognizes good work but does little in the way of rewarding
- c. He recognizes and rewards good work
- d. He is very appreciative and eager to reward good work

2. In my work group, a crew member is almost always certain to hear about mistakes, but seldom hears about his successes.

- a. Strongly agree
- b. Agree
- c. Not sure
- d. Disagree
- e. Strongly disagree

3. To what extent is your supervisor willing to listen to your problems?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

4. To what extent is your supervisor friendly and easy to approach?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

5. To what extent is your supervisor attentive to what you say?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

Goal Emphasis: Behavior that stimulates personal involvement in meeting group goals. Emphasizes high standards of performance and sets an example by working hard himself.

1. To what extent does your supervisor emphasize high standards of performance?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

2. To what extent does your supervisor set an example by working hard himself?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

3. To what extent does your supervisor encourage people to give their best effort?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

4. Personnel are encouraged to work for promotion.

- a. Strongly agree
- b. Agree
- c. Not sure
- d. Disagree
- e. Strongly disagree

Work Facilitation: Behavior that helps achieve goal attainment. Such activities as scheduling, coordinating, planning, and providing resources.

1. To what extent does your supervisor encourage you and your co-workers to think and act for yourselves?

- a. Not at all
- b. To a small extent
- c. To some extent
- d. To a great extent
- e. To a very great extent

Work Facilitation (continued)

2. To what extent does your supervisor offer new ideas for job-related problems?
  - a. Not at all
  - b. To a small extent
  - c. To some extent
  - d. To a great extent
  - e. To a very great extent
3. To what degree does your supervisor provide the help you need to schedule your work ahead of time?
  - a. None
  - b. A minimum amount
  - c. A moderate amount
  - d. A considerable amount
  - e. A maximum amount
4. To what extent does your supervisor show you how to improve your performance?
  - a. Not at all
  - b. To a small extent
  - c. To some extent
  - d. To a great extent
  - e. To a very great extent
5. How would you describe the amount of responsibility delegated by your supervisor?
  - a. None
  - b. A minimum amount
  - c. A moderate amount
  - d. A considerable amount
  - e. A maximum amount

Interaction Facilitation: Behavior that encourages the development of close, mutually satisfying relationships within the group.

1. How often does your supervisor hold group meetings where he and the people who work for him really discuss things?
  - a. Never
  - b. Rarely
  - c. Sometimes
  - d. Rather often
  - e. Nearly all the time
2. Generally, how are decisions made in your work group?
  - a. By the supervisor alone
  - b. By the supervisor with the advice from the workers
  - c. By the supervisor and workers involved
  - d. By the whole group equally
3. To what extent does your supervisor encourage the people who work for him to work as a team?
  - a. Not at all
  - b. To a small extent
  - c. To some extent
  - d. To a great extent
  - e. To a very great extent

4. To what extent does your supervisor encourage the people who work for him to exchange ideas and opinions?
  - a. Not at all
  - b. To a small extent
  - c. To some extent
  - d. To a great extent
  - e. To a very great extent

Planning and Coordination: Degree to which individuals feel that their supervisors are able to plan and coordinate the group's activities so that maximum performance is possible.

1. Overall, how good a job do you feel is being done by your immediate supervisor?
  - a. Very good
  - b. Good
  - c. Fair
  - d. Poor
  - e. Very poor
2. Does the way your work group is organized help or hurt the efficient conduct of the work?
  - a. Helps a lot
  - b. Helps somewhat
  - c. Neither helps nor hurts
  - d. Hurts somewhat
  - e. Hurts a lot
3. How often are requirements changed after you begin working on a task because of poor initial planning or lack of coordination?
  - a. Often
  - b. Occasionally
  - c. Seldom
  - d. Very rarely
  - e. Never

Upward Interaction: Degree to which a supervisor is successful in his interactions with higher levels of command.

1. How successful is your division head in his dealing with higher levels of command?
  - a. Below average
  - b. About average
  - c. Definitely about average
  - d. Very good
  - e. Outstanding
2. How successful is your immediate supervisor in dealing with higher levels of command?
  - a. Outstandingly successful
  - b. Very successful
  - c. Definitely above average success
  - d. About average success
  - e. Below average success

Confidence and Trust - Upward: Group member's feelings of trust and confidence in their supervisors.

1. The crew members generally trust their Chief Petty Officers.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. The crew members generally trust their Officers.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Confidence and Trust - Downward: The degree to which supervisors trust the judgments of subordinates.

1. Everything is checked; individual judgment is not trusted.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. Verbal reports are never accepted; everything has to be in writing.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. People act as though everyone must be watched or they will slack off.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. Aboard this ship crew members are treated with respect.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
5. To what extent do things aboard this ship have to be done by the book?
  - a. Everything is done by the book!
  - b. Almost everything is done by the book
  - c. A good deal of the activity aboard this ship is done according to the book
  - d. Only some things are done by the book
  - e. Practically nothing aboard this ship is done by the book.

#### WORK GROUP

Cooperation: An atmosphere in which there is cooperative effort among individuals to carry out difficult tasks.

1. A spirit of cooperation is evident in my work group.
  - a. Strongly agree
  - b. Agree
  - c. Neither agree nor disagree
  - d. Disagree
  - e. Strongly disagree
2. How much friction is there in your work group?
  - a. A great deal
  - b. Quite a bit
  - c. Some
  - d. Little
  - e. Very little
3. The people I work with cooperate to get the job done.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. Assistance from my co-workers in carrying out difficult jobs is:
  - a. Non-existent
  - b. Limited
  - c. Fairly good
  - d. Quite good
  - e. Outstanding

Friendliness and Warmth: The extent to which there is communication and trust among members of a work group; the atmosphere is characterized by friendly relations.

1. To what extent does a friendly atmosphere prevail among most of the members of your work group?
  - a. To a very small extent
  - b. To a small extent
  - c. To some extent
  - d. To a considerable extent
2. Members of my work group trust each other.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. Communication is good in my work group.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Reputation for Effectiveness: The extent to which the group is about to produce work of high quality and quantity.

1. How does your work group compare to all other work groups in your division in terms of productivity?
  - a. It is one of the most productive work groups in the division
  - b. It is considerably above average in productivity
  - c. It is somewhat above average in productivity
  - d. My work group has about average productivity
  - e. My work group is somewhat below average in productivity
2. How would you rate the quality of work produced in your work group?
  - a. Very poor
  - b. Poor
  - c. Fair
  - d. Good
  - e. Very good
3. How does your division compare to all other divisions on this ship in terms of productivity?
  - a. It is one of the most productive divisions (top 5%)
  - b. It is considerably above average in productivity (top 20%)
  - c. It is somewhat above average in productivity (top 40%)
  - d. My division has about average productivity for the ship
  - e. My division is somewhat below average in productivity

Workgroup Esprit de Corps: The extent to which persons take pride in their group.

1. Most of the personnel in my division would not want to change to another division.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. Most of the officers aboard this ship feel that my division is:
  - a. Somewhat below average
  - b. About average
  - c. Somewhat above average
  - d. Definitely above average
  - e. Outstanding
3. Most members of my work group take pride in their jobs.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

4. Most of the crew members in my division think our division is the best on the ship.

- a. Strongly agree
- b. Agree
- c. Not sure
- d. Disagree
- e. Strongly disagree

TOTAL ORGANIZATION AND/OR SUBSYSTEM

Openness of Expression: Degree to which individuals feel the atmosphere is conducive to the expression of individual opinions and ideas.

1. The crew is encouraged to ask questions about the ship's affairs.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. To what extent are ideas and suggestions paid attention to?
  - a. There seems to be a disregard for ideas and suggestions made by crew members
  - b. Few ideas and suggestions are considered
  - c. It is not unusual for some ideas and suggestions made by crew members to reach the top
  - d. Ideas and suggestions are considered regardless of their source
3. To what extent do you think there is resistance to meaningful change aboard this ship?
  - a. Change is openly received; there is no resistance
  - b. There is a minimal resistance to change
  - c. Change is resisted often
  - d. The policies aboard this ship reflect strong resistance to change; there seems to be a "don't rock the boat" attitude
4. Policies encourage openness in communication; no one has to fear the consequences for expression his opinions.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
5. To what extent is communication hindered by following chain of command rules?
  - a. Not at all
  - b. To a very small extent
  - c. Very little
  - d. Somewhat
  - e. To a considerable extent

Organizational Communication - Downward: Degree to which information is communicated to subordinates concerning impending changes in procedures, policies, and so forth.

1. Nobody ever knows what's going on in my division because we are not kept informed.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Organizational Communication - Downward (continued)

2. Aboard this ship about the only source of information on important matters is the grapevine (rumor).
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. Are you given advance information about changes (policies, procedures, ship movements, etc.) which might affect you?
  - a. Very frequently taken by surprise
  - b. Frequently taken by surprise
  - c. Sometimes surprised by things we should have known
  - d. Usually know about things ahead of time
  - e. Always know about things ahead of time
4. When changes are made in your work, are you usually told why?
  - a. Almost always
  - b. Usually
  - c. Sometimes
  - d. Rarely
  - e. Almost never

Interdepartment Cooperation: The extent to which there is friendly, cooperative interaction between departments.

1. Generally there are friendly and cooperative relationships between the different divisions on this ship.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. There is poor communication between divisions aboard this ship.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. To what extent do you feel there is conflict (rivalry and hostility) between your division and other divisions aboard ship?
  - a. To a very great extent
  - b. To a great extent
  - c. To some extent
  - d. To a small extent
  - e. To a very small extent

Conflict of Organizational Goals and Objectives: Degree to which goals and policies of one organization are in conflict with those of other groups in the same organization.

1. Things aboard this ship seem to happen contrary to rules and regulations.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

2. Things are planned so that everyone is getting in each other's way.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. How often are the objectives, goals or policies of this ship changed?
  - a. Very often
  - b. Often
  - c. Occasionally
  - d. Seldom
  - e. Very rarely or never
4. How often are the objectives, goals, or policies of your division in conflict with those of the ship?
  - a. Often
  - b. Occasionally
  - c. Seldom
  - d. Rarely
  - e. Never
5. The things that are seen as most important on this ship are not related to overall ship effectiveness.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Ambiguity of Organizational Structure: The extent to which jobs in the organization are meaningfully related to each other and the channels of authority are clearly defined.

1. How clearly defined are the objectives of your ship?
  - a. Sometimes obscure or poorly defined
  - b. Generally adequately defined
  - c. Better than most
  - d. Exceptionally well defined
2. The channels of authority aboard this ship are generally:
  - a. Undefined
  - b. Poorly defined
  - c. Somewhat defined
  - d. Generally clear
  - e. Very clear
3. To what extent is it possible to get accurate information on the policies and objectives of this ship?
  - a. Not at all
  - b. To a very small extent
  - c. To a small extent
  - d. To some extent
  - e. To a great extent

Consistent Application of Organizational Policies: The degree to which organizational policies are consistently and fairly applied.

1. How do you regard the discipline aboard this ship?
  - a. Totally inconsistent
  - b. Inconsistent most of the time
  - c. Consistent most of the time
  - d. Completely consistent

Consistent Application of Organizational Policies (continued)

2. How often are people in other rates allowed special privileges that individuals in your rate do not receive?
  - a. Frequently
  - b. Sometimes
  - c. Rarely
  - d. All people are treated equally
3. How consistently are ship's policies applied to all the crew?
  - a. Totally inconsistent
  - b. Inconsistent most of the time
  - c. Consistent most of the time
  - d. Completely consistent; all are treated the same

Organizational Esprit de Corps: The degree to which an individual believes the organization performs an important function and offers him the opportunities for growth and reward.

1. The opportunities for promotion on this ship compared to those in other duty stations are:
  - a. Much lower
  - b. Slightly lower
  - c. About the same
  - d. Slightly higher
  - e. Much higher
2. Does this ship perform an important function in the Navy?
  - a. Yes, for the most part
  - b. Uncertain
  - c. No, for the most part
3. Most crew members are proud of their ship.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. To what extent is duty aboard this ship beneficial to your career?
  - a. Not at all
  - b. To a very small extent
  - c. To a small extent
  - d. To some extent
  - e. To a considerable extent
5. I would rather stay on this ship than transfer to another.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
6. Working conditions on this ship are better than on other ships.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Professional Esprit de Corps: Degree to which an individual believes his profession has a good image to outsiders and permits opportunities for growth and advancement.

1. How do you feel about recommending the Navy to a prospective recruit?
  - a. I would not recommend the Navy under any circumstances
  - b. I would probably recommend the Navy under certain circumstances
  - c. I would recommend the Navy to most recruits
2. I have more opportunities for growth and advancement in the Navy than in civilian life.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
3. Most individuals see a good future for themselves in the Navy.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. I think that the Navy has a good image to outsiders.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
5. In comparison with people in similar jobs in civilian organizations, I feel my pay is:
  - a. Much higher
  - b. Slightly higher
  - c. About the same
  - d. Slightly lower
  - e. Much lower

Planning and Effectiveness: Degree to which the organization is able to plan so that work groups have the required supplies and that there is little wasted effort.

1. To what extent does your ship strive to do a better job than other ships of the same type?
  - a. Not at all
  - b. To a small extent
  - c. To some extent
  - d. To a great extent
  - e. To a very great extent
2. On the basis of your experience and information, how would you rate your ship on effectiveness?
  - a. Very poor
  - b. Poor
  - c. Fair
  - d. Good
  - e. Very good
3. Aboard this ship, most of the jobs are set up so that they involve a great deal of wasted effort.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

Planning and Effectiveness (continued)

4. The methods of my work are kept up-to-date.
- Strongly agree
  - Agree
  - Not sure
  - Disagree
  - Strongly disagree
5. How effective is your ship in working under pressure?
- Does very poorly under pressure
  - Tends to become somewhat disorganized
  - Works steadily under pressure
  - Increases effort
  - Stimulated, does best work

Fairness and Objectives of Reward Process: Degree to which organization rewards individuals for performance rather than seniority, or other non-performance reasons.

1. How important is being liked in getting a promotion?
- Not very important
  - Somewhat important
  - Quite important
  - Highly important
  - Of vital importance
2. How much do "politics" count in getting a promotion?
- Are about the only way
  - Usually a powerful cause
  - Sometimes are the determiner
  - Have some slight influence
  - Have no appreciable effect

Opportunities for Growth and Advancement: Degree to which an individual feels that the organization provides a vehicle for development and advancement of his professional career.

1. Experience and dedication are financially rewarded in the Navy.
- Strongly agree
  - Agree
  - Not sure
  - Disagree
  - Strongly disagree
2. Opportunities for promotion in my rate compared to those in other rates are:
- Much higher
  - Slightly higher
  - About the same
  - Slightly lower
  - Much lower
3. To what extent does your organization emphasize personal growth and development?
- Not at all
  - To a very small extent
  - To a small extent
  - To some extent
  - To a considerable extent

4. How often do management personnel aboard your ship make an honest effort to reward outstanding work?
- Very frequently
  - Frequently
  - Sometimes
  - Seldom
  - Practically never

5. In my job, opportunities to learn worthwhile new skills and knowledge are:
- Non-existent
  - Limited
  - Fairly good
  - Quite good
  - Outstanding
6. In the Navy there are plenty of opportunities for training and advancement for those who work for it.
- Strongly agree
  - Agree
  - Not sure
  - Disagree
  - Strongly disagree

7. Opportunities for advanced training on this ship are:
- Non-existent
  - Limited
  - Fairly good
  - Quite good
  - Outstanding

Awareness of Employee Needs: Extent to which an organization attempts to assess and respond to its employees' needs and problems.

1. Petty Officers generally know what is going on in their work groups.
- Strongly agree
  - Agree
  - Not sure
  - Disagree
  - Strongly disagree
2. Do you feel that people at division and command levels of the ship are aware of the problems and needs at your level?
- No, they are quite unaware
  - They are generally uninformed due to poor communications or lack of interest
  - They hear about my level only when the information is quite important
  - People at higher levels have a fairly good knowledge of other levels
  - Yes, they have a very good understanding of the problems and need at my level.
3. Officers keep well informed about the needs and problems of the crew.
- Strongly agree
  - Agree
  - Not sure
  - Disagree
  - Strongly disagree

Table 5  
Job Attitude Scales

Need Satisfaction and Need Strength Items\*

Security: The feeling of security in my job.

Social: The opportunity to develop close friendships in my job.

Esteem: The feeling of self-esteem or self-respect a person gets from being in my job.

The prestige of my job within the ship (that is, the regard received from others on the ship).

The prestige of my job with civilians.

The authority connected with my position.

Autonomy: The opportunity for independent thought and action in my job.

The opportunity, in my job, for participation in the determination of methods, procedures, and goals.

The amount of close supervision I receive.

Self-Actualization: The opportunity for personal growth and development in my job.

The feeling of worthwhile accomplishment in my job.

Navy Satisfaction:

334. Considering everything, how satisfied are you with your present job?

- a. Very dissatisfied
- b. Dissatisfied
- c. Indifferent
- d. Satisfied
- e. Very satisfied

335. How often do you wish you could quit your present job?

- a. About all the time
- b. Very often
- c. Somewhat often
- d. Seldom
- e. Never

336. Generally speaking, how satisfied are you with the kind of work you have to do on your job?

- a. Very dissatisfied
- b. Dissatisfied
- c. Indifferent
- d. Satisfied
- e. Very satisfied

337. Considering everything, how would you rate your overall satisfaction in the Navy at the present time?

- a. Very dissatisfied
- b. Dissatisfied
- c. Indifferent
- d. Satisfied
- e. Very satisfied

Intrinsic Motivation:

330. When I do my job well, it gives me a feeling of accomplishment.

- a. Strongly agree
- b. Agree
- c. Indifferent
- d. Disagree
- e. Strongly disagree

331. When I do my job well, it contributes to my personal growth and development.

- a. Strongly agree
- b. Agree
- c. Indifferent
- d. Disagree
- e. Strongly disagree

332. I feel a great sense of personal satisfaction when I do my job well.

- a. Strongly agree
- b. Agree
- c. Indifferent
- d. Disagree
- e. Strongly disagree

333. Doing my job well increases my feeling of self-esteem.

- a. Strongly agree
- b. Agree
- c. Indifferent
- d. Disagree
- e. Strongly disagree

\*Need Strength items are identical to Need Satisfaction items, but response categories differ. Response categories for Need Satisfaction items range from (a) "Very dissatisfied" to (e) "Very satisfied." Response categories for Need Strength items range from (a) "I would like a minimum amount" to (e) "I would like a maximum amount."

Job Involvement:

324. The major satisfaction in my life comes from my job.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree
325. The most important things that happen to me involve my job.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree
326. I live, eat, and breath my job.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree
327. I am very much involved personally in my work.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree
328. I'm really a perfectionist about my work.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree
329. Most things in life are more important than work.
- a. Strongly agree
  - b. Agree
  - c. Indifferent
  - d. Disagree
  - e. Strongly disagree

Table 6

Self-Report of Illness

355. How would you rate your present state of health?
- Poor
  - Fair
  - Good
  - Very good
  - Excellent
356. How would you rate your general health during the past year?
- Poor
  - Fair
  - Good
  - Very good
  - Excellent
357. How many times did you seek medical treatment for any reason during the past year?
- Never
  - Once
  - Twice
  - 3 or 4 times
  - 5 times or more
358. How many days in the past year were you off duty because of an illness or injury?
- None
  - 1 or 2 days
  - 3 or 4 days
  - 5 or 7 days
  - 8 days or more
359. How many times have you been hospitalized in the last five years?
- Never
  - Once
  - Twice
  - 3 or 4 times
  - More than 4 times
360. How many colds do you generally get in a year?
- None or 1
  - 2
  - 3
  - 4 or 5
  - 6 or more
361. How often have you been seasick on this ship?
- Never
  - Seldom
  - Occasionally
  - Frequently
362. During your life, what has your health and physical fitness been?
- Exceptionally good
  - Good, only a few minor illnesses
  - About the same as the average person
  - Somewhat of a handicap
  - Definitely a handicap
363. During the past year, have you been treated for any skin disorders (rash, sunburn, blister, ingrown nail, insect bite, acne, cold sore, etc.)?
- No
  - Once
  - More than once
364. During the past year have you been treated for any dental problems (tooth filled, tooth removed, etc.)?
- No
  - Once
  - More than once
365. During the past year have you been treated for any of the following: earache, ear infection, broken ear drum, ringing in ear, hearing loss, something in eye, blurred vision, headache, dizziness, nervousness or insomnia?
- No
  - Once
  - More than once
366. During the past year have you been treated for a cold, flu, hay fever, pneumonia, or strep throat?
- No
  - Once
  - More than once
367. During the past year have you been treated for an upset stomach, seasickness, hemorrhoids, constipation, diarrhea, or appendicitis?
- No
  - Once
  - More than once
368. During the past year have you been treated for burning urination, frequent urination, blood in urine, or venereal disease?
- No
  - Once
  - More than once
369. During the past year have you been treated for a weight loss or an overweight condition?
- No
  - Once
  - More than once
370. During the past year have you been treated for a broken bone, muscle sprain or strain, back pain, cut, burn, or concussion?
- No
  - Once
  - More than once

Table 7

Mission Effectiveness

- |   |  |
|---|--|
| <p>46. How would you describe the mechanical condition of this ship?</p> <ul style="list-style-type: none"> <li>a. The ship is always in need of repair</li> <li>b. This ship seems to have considerable mechanical trouble</li> <li>c. This ship has few mechanical difficulties</li> <li>d. This ship is quite sound mechanically</li> <li>e. This ship is in excellent mechanical condition</li> </ul> <p>47. How often does this ship fail to meet commitments due to mechanical problems?</p> <ul style="list-style-type: none"> <li>a. Never</li> <li>b. Seldom</li> <li>c. Occasionally</li> <li>d. Frequently</li> </ul> <p>187. Procedures are designed so that equipment is used efficiently.</p> <ul style="list-style-type: none"> <li>a. Strongly agree</li> <li>b. Agree</li> <li>c. Not sure</li> <li>d. Disagree</li> <li>e. Strongly disagree</li> </ul> | <p>*189. There is a continuous effort to improve the quality of work aboard this ship.</p> <ul style="list-style-type: none"> <li>a. Strongly agree</li> <li>b. Agree</li> <li>c. Not sure</li> <li>d. Disagree</li> <li>e. Strongly disagree</li> </ul> <p>*215. Does this ship perform an important function in the Navy?</p> <ul style="list-style-type: none"> <li>a. Yes, for the most part</li> <li>b. Uncertain</li> <li>c. No, for the most part</li> </ul> <p>*217. On the basis of your experience and information, how would you rate your ship on effectiveness?</p> <ul style="list-style-type: none"> <li>a. Very poor</li> <li>b. Poor</li> <li>c. Fair</li> <li>d. Good</li> <li>e. Very good</li> </ul> <p>*282. How effective is your ship in working under pressure?</p> <ul style="list-style-type: none"> <li>a. Does very poorly under pressure</li> <li>b. Tends to become somewhat disorganized</li> <li>c. Works steadily under pressure</li> <li>d. Increases effort</li> <li>e. Stimulated, does best work</li> </ul> |
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\*These items also are included in the Organizational Climate scales.

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types of individual and organizational data are described, and principal criterion measures are indicated. The procedures and instruments summarized represent a comprehensive measurement system for analysis of naval organizations.

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